To: Beringer, Mike[Beringer.Michael@epa.gov]
From: Vann, Bradley
Sent: Wed 1/14/2015 5:28:09 PM
Subject: RE: West Lake Landfill - Pyrolysis testing of soils

Thanks, Mike. Chuck also gave me some rad lead to follow at NAERL and RERT team leaders, so I checking into those resources. Chuck also suggested checking with OSRTI on possible radon risk software person (Stewart Walker), which may be able to support this effort.

Bradley Vann - Remedial Project Manager

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From: Beringer, Mike
Sent: Wednesday, January 14, 2015 11:03 AM
To: Vann, Bradley
Subject: RE: West Lake Landfill - Pyrolysis testing of soils

I have already spoken to Todd Phillips about this and will also follow-up with Mike Davis.

From: Vann, Bradley
Sent: Wednesday, January 14, 2015 8:14 AM
To: Beringer, Mike
Cc: Davis, Michael; Phillips, Todd; Hooper, Charles A.; Dye, Robert; Kiefer, Robyn V NWK; McKernan, John; Field, Jeff; Jefferson, Matthew
Subject: West Lake Landfill - Pyrolysis testing of soils

Mike,

Per our discussion yesterday, EPA needs to determine applicable sampling methods with regards to West Lake Landfill soil samples and would appreciate anything you can provide as well, be it TCLP, LEAF or other methods that provides that can best scientific answer. I've previously spoken with Jeff and he mentioned Republic still having some of their hottest rotosonic soil cores sitting in locked connex that could be sent off for such testing. The RA wants us over the next few weeks to determine what methods/DQOs we would need, who can/will perform the analyses for EPA and figure out the best mechanism to employ the lab(s). Note on the last part, I have an IA with USACE that can likely provide support for lab if needed. We need sufficient information to draft a scope and get a QAPP developed for EPA or contractor to collect split samples (assuming Republic also performs the sampling). We need to be able to answer the fundamental question of what will happen to soils under subsurface smoldering events (SSE or pyrolysis) conditions with empirical data. This will strengthen not only our understand of site condition (best and worst case scenarios) but also support best scientific course of action and any potential risks associated.

Some items previously discussed with John McKernan at ETSC and Robyn Kiefer at USACE include (who I have copied on this email):

Test Parameters to be considered 1) Cold soil/hot leachate (simulates near pyrolysis event driving hot fluids towards RIM soils at site) and , 2) hot soil - gradational increases from 200 - 500 degree F (simulates active pyrolysis event with RIM soils at site)

The state has also asked that we consider looking at surface soils impacted by surface fire conditions but likely too many variables in this scenario to realistically quantify in lab but we can discuss it further.

Analytes to evaluate for monitoring include (from ROD): standard VOC/SVOC, metals/(ROD COCs) U238, U235, U232 (daughters) U234, TH230, Ra226, Pb210, Protactinium, PCB (Aroclor 1254) – Radon – Most important part of course would be radionuclides and radon which is driving other theories at the site for potential risks. Assume this would also require evaluating possible alpha spectroscopy and gamma emitting decay but leave it to others to better

define as I am neither chemist nor HP. Just trying to vet all relevant information within our team.

In short, I need to assemble a group of experts that can help flesh this out very quickly, as our intent is to get Republic on board to perform the sampling but also take splits for QA.

Thanks,

Bradley Vann - Remedial Project Manager

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